

PMC-ND

(1.08.09.13)

**U.S. DEPARTMENT OF ENERGY
OFFICE OF ENERGY EFFICIENCY AND RENEWABLE ENERGY
NEPA DETERMINATION**

RECIPIENT: [Electric Power Research Institute](#)STATE: [NC](#)PROJECT TITLE: [Wind Intelligently Integrated into Rural Energy Systems](#)

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0002071	DE-EE0008957	GFO-0008957-001	GO8957

Based on my review of the information concerning the proposed action, as NEPA Compliance Officer (authorized under DOE Policy 451.1), I have made the following determination:

CX, EA, EIS APPENDIX AND NUMBER:

Description:

A9 Information gathering, analysis, and dissemination Information gathering (including, but not limited to, literature surveys, inventories, site visits, and audits), data analysis (including, but not limited to, computer modeling), document preparation (including, but not limited to, conceptual design, feasibility studies, and analytical energy supply and demand studies), and information dissemination (including, but not limited to, document publication and distribution, and classroom training and informational programs), but not including site characterization or environmental monitoring. (See also B3.1 of appendix B to this subpart.)

Rationale for determination:

The U.S. Department of Energy (DOE) is proposing to provide funding to Electric Power Research Institute (EPRI) to model and evaluate the potential for increased wind penetration on the distribution system.

EPRI would complete a variety of tasks which would involve computer simulations of wind turbines, their controls optimization, and coupling with energy storage to maximize the amount of wind energy on certain power systems. Computer modeling would include use of the Flexible Energy Scheduling Tool for Integrating Variable Generation (FESTIV). FESTIV is a tool to replicate actual system operations at a high time resolution and allows for flexibility to accommodate many market and operational structures. Modeling would also include using InFLEXion. InFLEXion is an EPRI developed tool that uses the calculation of system level flexibility metrics to determine planning and operations risks as it relates to ancillary service needs. Modeling would also include use of OpenDSS. OpenDSS is an EPRI-developed tool used to study frequency and voltage related impacts on the distribution system. Finally, modeling would include the use of StorageVET. StorageVET is an EPRI-developed price-taker model that optimizes storage dispatch to maximize revenue, operational characteristics, and prices for energy and ancillary services. StorageVET would be used in this effort to determine optimal battery sizing for wind plus storage installations and evaluate the impact of operational strategy on the life of battery storage systems.

All work would be completed by EPRI and would be limited to computer modeling and data analysis.

NEPA PROVISION

DOE has made a final NEPA determination.

Notes:

[Water Power Technologies Office](#)
This NEPA determination does not require a tailored NEPA provision.
Review completed by Roak Parker, April 27, 2020

FOR CATEGORICAL EXCLUSION DETERMINATIONS

The proposed action (or the part of the proposal defined in the Rationale above) fits within a class of actions that is listed in Appendix A or B to 10 CFR Part 1021, Subpart D. To fit within the classes of actions listed in 10 CFR Part 1021, Subpart D, Appendix B, a proposal must be one that would not: (1) threaten a violation of applicable statutory, regulatory, or permit requirements for environment, safety, and health, or similar requirements of DOE or Executive Orders; (2) require siting and construction or major expansion of waste storage, disposal, recovery, or treatment facilities (including incinerators), but the proposal may include categorically excluded waste storage, disposal, recovery, or treatment actions or facilities; (3) disturb hazardous

substances, pollutants, contaminants, or CERCLA-excluded petroleum and natural gas products that preexist in the environment such that there would be uncontrolled or unpermitted releases; (4) have the potential to cause significant impacts on environmentally sensitive resources, including, but not limited to, those listed in paragraph B(4) of 10 CFR Part 1021, Subpart D, Appendix B; (5) involve genetically engineered organisms, synthetic biology, governmentally designated noxious weeds, or invasive species, unless the proposed activity would be contained or confined in a manner designed and operated to prevent unauthorized release into the environment and conducted in accordance with applicable requirements, such as those listed in paragraph B(5) of 10 CFR Part 1021, Subpart D, Appendix B.

There are no extraordinary circumstances related to the proposed action that may affect the significance of the environmental effects of the proposal.

The proposed action has not been segmented to meet the definition of a categorical exclusion. This proposal is not connected to other actions with potentially significant impacts (40 CFR 1508.25(a)(1)), is not related to other actions with individually insignificant but cumulatively significant impacts (40 CFR 1508.27(b)(7)), and is not precluded by 40 CFR 1506.1 or 10 CFR 1021.211 concerning limitations on actions during preparation of an environmental impact statement.

The proposed action is categorically excluded from further NEPA review.

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature:

 Electronically Signed By: **Roak Parker**
NEPA Compliance Officer

Date: 4/28/2020

FIELD OFFICE MANAGER DETERMINATION

- Field Office Manager review not required
- Field Office Manager review required

BASED ON MY REVIEW I CONCUR WITH THE DETERMINATION OF THE NCO :

Field Office Manager's Signature:

Field Office Manager

Date: _____